

REMARKS

Entry of the foregoing and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. §1.112, are respectfully requested in light of the remarks which follow.

By the above amendments, claim 4 has been canceled without prejudice or disclaimer, and the subject matter thereof has been incorporated into independent claim 1.

In the Official Action, claims 1-3, 7, 8 and 10-17 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,129,980 (*Tsukada et al*). As discussed above, claim 1 has been amended by incorporating the subject matter of claim 4 therein. This rejection is therefore moot in light of the fact that claim 4 has not been rejected in the above rejection. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 4 and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over *Tsukada et al*. As discussed above, claim 4 has been canceled and the subject matter thereof has been incorporated into independent claim 1. Claim 1 is not anticipated by or rendered obvious over *Tsukada et al* for at least the following reasons.

Independent claim 1 is directed to an anti-reflection film that is an optical film, comprising, at least, a hard coat layer, and a low-refractive-index layer containing a binder polymer, on a transparent support, wherein said binder polymer in the low-refractive-index layer is a fluorine-containing polymer that is a perfluoroolefin copolymer, and wherein said hard coat layer and/or said low-refractive-index layer contains: (a) a hydrolysate of an organosilane in which a hydroxyl group or a hydrolysable group is directly bonded to silicon, and/or a partial condensation product thereof; and (b) at least one metal chelate compound of an alcohol represented by formula R^3OH , in which R^3 represents an alkyl group having 1 to 10 carbon atoms, and a compound represented by formula $R^4COCH^2COR^5$, in which R^4

represents an alkyl group having 1 to 10 carbon atoms, and R⁵ represents an alkyl group having 1 to 10 carbon atoms or an alkoxy group having 1 to 10 carbon atoms, as ligands, and a metal selected from the group consisting of Zr, Ti and Al, as a central metal, and wherein at the surface on said low-refractive-index layer side, a coefficient of dynamic friction is in the range of 0.03 to 0.15, and a contact angle to water is in the range of 90 to 120°.

Tsukada et al discloses an anti-reflection film that has a low-refractive-index layer and a high-reflective-index layer, wherein the low-refractive-index layer is formed by coating a composition comprising a hydrolysis product or a partial condensation product of an organosilane and a vinyl resin (see abstract).

Tsukada et al does not disclose each feature recited in claim 1, and as such fails to constitute an anticipation of such claim. For example, *Tsukada et al* fails to disclose an anti-reflection film wherein at the surface of the low-refractive-index layer side, a coefficient of dynamic friction is in the range of 0.03 to 0.15, and a contact angle to water is in the range of 90 to 120°, as recited in amended claim 1. In this regard, the Patent Office has asserted that "these properties would have been inherent in the low-refractive layer...of *Tsukada et al.* because *Tsukada et al.* use the same materials as those set forth in the instant invention" (Official Action at page 6). However, Applicants respectfully submit that the anti-reflection film of *Tsukada et al* does not possess the coefficient of dynamic friction and contact angle to water characteristics now recited in claim 1.

To this end, attached for the Examiner's consideration is a Declaration Under 37 C.F.R. § 1.132 of Tatsuhiko Obayashi (hereinafter "Declaration"), in which comparative Samples X, Y and Z and inventive Samples 124 to 129 were prepared in the manner discussed at page 2 of the Declaration. In particular, comparative Samples X, Y and Z were prepared using the low-refractive-index layer compositions F, G and I disclosed in *Tsukada et*

al, respectively. The coefficient of dynamic friction and contact angle characteristics of each sample were evaluated, and the results are set forth in Table B at page 4 of the Declaration. As can be seen from such results, the coefficient of dynamic friction and the contact angle of the comparative samples employing low-refractive-index layer compositions disclosed by *Tsukada et al*, are outside of the claimed ranges of such characteristics. Specifically, the coefficient of dynamic friction of each of Samples X, Y and Z was found to be 0.38, 0.39 and 0.33, respectively, which are outside the range of 0.03 to 0.15 recited in claim 1. The contact angle of each of Samples X, Y and Z was found to be 42°, 38° and 45°, respectively, which are outside the range of 90 to 120° recited in claim 1. Clearly, for at least the above reasons, *Tsukada et al* fails to constitute an anticipation of claim 1.

Furthermore, Applicants submit that the Declaration shows the surprising and unexpected nature of aspects of the claimed invention, for example, by demonstrating that an anti-reflection film can be prepared having excellent anti-staining properties, while maintaining good anti-glare, glistening, pencil hardness, and adhesion characteristics.

As discussed above, comparative Samples X, Y and Z were prepared by using low-refractive-index layer compositions disclosed by *Tsukada et al*, and inventive Samples 124 to 129 correspond to those described in Example 1 of the instant specification. Various characteristics of comparative Samples X, Y and Z and inventive Samples 124 to 129 were evaluated in the manner discussed at page 3 of the Declaration, and the results are set forth in Table B. As shown in Table B, the fingerprint adhesion test of comparative Samples X, Y and Z resulted in fingerprints left thereon that were hardly wiped out. That is, comparative Samples X, Y and Z exhibited poor anti-staining properties. In contrast, inventive Samples 124 to 129 exhibited excellent anti-staining properties, i.e., fingerprints left thereon were completely wiped off in each of the inventive samples.

As discussed at page 5 of the Declaration, in Test 2, the comparative Samples X, Y and Z, and Samples 124 to 129, were subjected to saponification treatment and evaluated for film separation and crosscut adhesion, in the same manner as in Example 1 in the present specification, at pages 173-175. As shown in Table C of the Declaration, in comparative Samples X, Y and Z, separation was observed for more than five films in the film separation test, and separation was observed for more than two squares in the cross cut adhesion test. That is, Samples X, Y and Z exhibited poor adhesion properties. On the other hand, in inventive Samples 124 to 129, no separation was observed for all one-hundred films in the film separation test, and no separation was observed for all one-hundred squares in the cross cut adhesion test. Thus, from the above results, it is apparent that inventive Samples 124 to 129 exhibited excellent adhesion properties.

For at least the above reasons, it is apparent that *Tsukada et al* fails to render obvious claim 1. Accordingly, withdrawal of this rejection is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is respectfully requested. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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